Prince Edward Island
CANADA

Environment, Energy and Forestry

Annual Report 2006-2007

An Anniversary Year
for these provincial symbols
Lady's Slipper – designated in 1947
Blue Jay – designated in 1977
Red Oak – designated in 1987

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Minister's Message

The Honourable Barbara Hagerman
Lieutenant Governor
Province of Prince Edward Island

May It Please Your Honour:

It is my privilege to present the Annual Report of the Department of Environment, Energy and Forestry for the fiscal year ended March 31, 2007.

Respectfully submitted,

Jamie Ballem,
Minister during the Reporting Period

Deputy Minister's Message

To the Honourable Jamie Ballem
Minister of Environment, Energy and Forestry

Sir:

I am pleased to submit the 2006/2007 Annual Report of the Department of Environment, Energy and Forestry for the fiscal year ended March 31, 2007. This report will focus on the achievements of the department during the period of April 1, 2006 to March 31, 2007.

I would like to recognize and thank the employees of the Department of Environment, Energy and Forestry for their dedication and service throughout the fiscal year.

Respectfully submitted,

John MacQuarrie
Deputy Minister

Department Overview

Our Vision

Our vision is of an enhanced connection between Islanders and their environment. Individuals, communities, businesses and governments value our natural capital. They understand the relationship among our environment, health and economy, and this relationship is a key consideration in all decision-making. Prince Edward Island is identified as Canada's "green" province – a model of sustainability.

Our Mission

Our mission is to work in close co-operation with Islanders to realize our vision.

- We help establish standards and work to ensure compliance for the protection of our natural environment.
- We lead by setting a positive example.
- We help Islanders make decisions that support the vision by publicly reporting on the state of our natural capital.

Legislative and Other Responsibilities Assigned to the Minister of Environment, Energy and Forestry

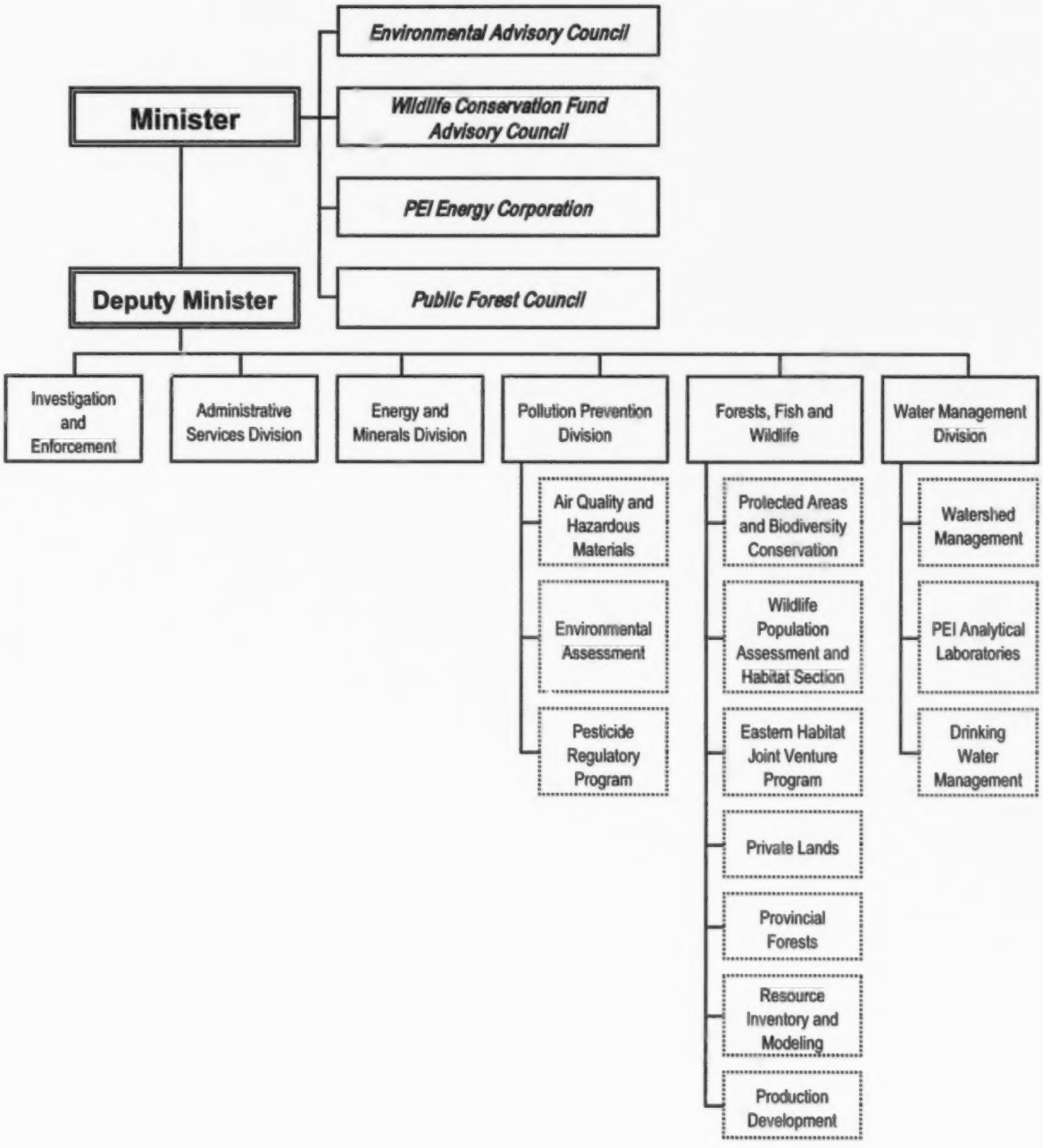
Acts/Statutes

Agricultural Crop Rotation Act
Automobile Junk Yards Act
Energy Corporation Act
Energy Efficient Appliances Act (when proclaimed)
Environmental Protection Act
Fire Prevention Act (Part VII)
Forest Management Act
Institute of Man and Resources Act
Mineral Resources Act
Natural Areas Protection Act
Natural Gas Distribution Act (when proclaimed)
Oil and Natural Gas Act
Pesticides Control Act
Public Forest Council Act
Unsightly Property Act
Wildlife Conservation Act

Board/Agencies/Commissions

Atlantic Wind Test Site Inc.
Energy Corporation
Environmental Advisory Council
Environmental Co-ordinating Committee
Natural Areas Protection Act Technical Advisory Committee
Natural Gas Distribution Board (upon proclamation of the *Natural Gas Distribution Act*)
Pesticides Advisory Committee
Public Forest Council
Sewage Disposal Regulations Board of Examiners
Species at Risk Advisory Committee
Wildlife Conservation Fund Advisory Committee

Organizational Chart



Year in Review

This year saw the anniversary of three provincial emblems: the 60th anniversary of the designation of the Pink Lady Slipper as the provincial flower for Prince Edward Island, the 30th anniversary of the designation of the Blue Jay as our provincial bird, and the 20th anniversary of the designation of the Red Oak as our provincial tree.

Following are highlights of department activities in 2006/2007:

- The Government and Maritime Electric Company, Limited signed a 20-year power purchase agreement that will see the utility purchase 39 megawatts of wind energy from the PEI Energy Corporation.
- Eastern Kings Wind Farm began commercial operation in January and generated over $1 million in revenue and over the span of 12 months produced enough electricity to supply 7.5 per cent of Prince Edward Island's total electricity and reduced greenhouse gas emissions by 75,000 tonnes.
- The Renewable Energy Assistance Program that helped low-income Islanders save money on their home heating bills by making their homes more energy efficient was extended for another year.
- A low-interest loan program for alternative heating systems was offered once again to help Islanders save on home heating costs.
- PEI Energy Savings Bonds in denominations of $500 became available through the PEI Energy Corporation, allowing Islanders to invest in the Eastern Kings Wind Farm project; and the Canada Revenue Agency ruled that the bonds qualified for RRSP eligibility.
- The Wind Energy Institute of Canada (WEICan) was officially opened in North Cape.
- The Province introduced a sales tax exemption for small scale renewable energy equipment.
- Ground Hemlock Regulations, based on recommendations of the Public Forest Council and consultations with industry, were approved to ensure the long-term sustainability of the raw material and the industry which depends on it.
- The department unveiled a new forest policy entitled *Moving to Restore a Balance in Island Forests*, based on extensive public and forest sector consultations.
- The department announced a five-year capital budget to upgrade the fleet of forest fire trucks and boats and ponds to improve service to Islanders.
- Changes were made to the Investigation and Enforcement Section to improve service provided to Islanders, and the department hired its first conservation officer of aboriginal status.

- Hunting Guide courses were offered for the first time to welcome out-of-province hunters for the fall season.
- Litter was the target of an enforcement blitz across the Island with no fewer than seven provincial acts under which violators can be charged.
- The Investigation and Enforcement Section under the Pollution Prevention Division became the Investigation and Enforcement Division.
- Arsenault's Pond in Egmont Bay was restored under the Province's new five-year capital budget for management of ponds and impoundments.
- The department designated Eagles Landing Tracadie Cross Bog as a protected natural area.
- The *Public Land Atlas* was released in hard copy through Island Information Service and made available online to increase visibility of the 34,000 hectares of public lands that the department manages.
- The Environmental Advisory Council was asked to carry out public consultations on managing land and water on a watershed basis.
- Training sessions were offered to individuals who operate or calibrate equipment to apply seed treatment pesticides to potato seed pieces or cereal grain seed, in preparation for April 1, 2007, when individuals must have a Class D Pesticide Applicator Certificate.
- New domestic pesticide regulations came into effect as a result of extensive public consultations on the use and regulation of pesticides in Prince Edward Island.

Bilan de l'année

Cette année marque l'anniversaire de trois emblèmes provinciaux : le 60e anniversaire de la désignation du sabot de la Vierge comme l'emblème floral de l'Île-du-Prince-Édouard, le 30e anniversaire de la désignation du geai bleu comme l'emblème aviaire et le 20e anniversaire de la désignation du chêne rouge comme l'emblème sylvicole (arbre-emblème).

Voici les faits saillants des activités du ministère pour 2006-2007 :

- Le gouvernement s'est engagé à produire, d'ici 2016 et au moyen de ressources renouvelables locales, 30 % de l'ensemble de ses besoins énergétiques;
- Le gouvernement et la Maritime Electric Company Limited ont signé une entente d'achat d'électricité de 20 ans selon laquelle l'entreprise achètera 39 mégawatts d'énergie éolienne de la Société de l'énergie de l'Î.-P.-É.;
- Les activités commerciales du parc éolien de Kings-Est ont été mises en marché en janvier, générant plus d'un million de dollars en revenus et produisant assez d'électricité pour alimenter 7,5 % de l'ensemble des besoins énergétiques de l'Î.-P.-É. et réduire les émissions de gaz à effet de serre de 75 000 tonnes;
- Le Programme d'aide liée aux frais d'énergie, qui a aidé les Insulaires à faible revenu à économiser de l'argent sur leurs factures de chauffage tout en augmentant l'efficacité énergétique de leur maison, a été prolongé pour une autre année;
- Les règlements concernant l'if du Canada, établis en fonction des recommandations du Conseil sur les forêts publiques et des consultations avec l'industrie, ont été approuvés afin d'assurer la viabilité à long terme de la matière première et de l'industrie qui en dépend;
- Des changements ont été apportés au niveau de la Section des enquêtes et de l'application de la loi afin d'améliorer le service offert aux Insulaires, et le ministère a embauché son premier agent de conservation d'origine autochtone;
- Des cours de guide de chasse ont été offerts pour la première fois afin d'accueillir des chasseurs de l'extérieur de la province pour la saison automnale;
- Un programme de prêt à faible taux d'intérêt, applicable aux autres systèmes de chauffage, a été offert encore une fois pour aider les Insulaires à économiser sur leurs coûts de chauffage domestique;
- Une campagne éclair a été menée d'un bout à l'autre de l'Île pour rappeler aux gens qu'il y a des conséquences lorsqu'on jette nos ordures et qu'il n'existe pas moins de sept lois provinciales selon lesquelles les transgresseurs peuvent être inculpés;
- La province a introduit une exemption de la taxe pour l'équipement de production d'énergie renouvelable à petite échelle;
- La Section des enquêtes et de l'application de la loi sous la Division de la prévention de la pollution est devenue la Division des enquêtes et de l'application de la loi;

- La Société de l'énergie de l'Î.-P.-É. a entrepris la vente d'obligations d'épargnes d'énergie de l'Î.-P.-É., en coupures de 500 $, afin de permettre aux Insulaires d'investir dans le projet du parc éolien de Kings-Est, puis l'Agence du revenu du Canada a décidé que celles-ci sont admissibles aux REER;
- L'Institut de l'énergie éolienne du Canada (IÉÉCan) a officiellement ouvert ses portes à North Cape;
- Le succès de l'Î.-P.-É. en matière de recherche et de développement des énergies renouvelables a été présenté lors d'une mission commerciale en Allemagne, lors d'un forum international sur l'énergie durable à San Francisco en Californie, puis lors du congrès et salon professionnel 2006 de l'Association canadienne de l'énergie éolienne à Winnipeg;
- Le ministère a dévoilé une nouvelle politique forestière intitulée *Rétablir l'équilibre écologique des forêts de l'Île*, fondée sur des consultations de grande envergure auprès du public et du secteur des forêts;
- L'étang Arsenault à Baie-Egmont a été restauré dans le cadre du nouveau budget quinquennal de dépenses en capital pour la gestion des étangs et des bassins;
- Le marais Eagles Landing Tracadie Cross Bog a été déclaré site naturel protégé par le ministère;
- Le ministère a annoncé un budget quinquennal de dépenses en capital pour la mise à niveau des étangs, ainsi que du parc de camions et de bateaux à incendie de forêt de l'Î.-P.-É., afin d'améliorer les services aux Insulaires;
- Un atlas des terres publiques (*Public Land Atlas*) a été lancé en copie papier par l'entremise du Service de renseignements de l'Île puis offert en ligne afin d'améliorer la visibilité des 34 000 hectares de terres publiques gérées par le ministère;
- Le Conseil consultatif sur l'environnement a été demandé de mener des consultations publiques portant sur la gestion des terres et de l'eau à l'échelle des bassins hydrologiques;
- Des séances de formation ont été offertes aux personnes chargées de faire fonctionner ou de calibrer l'équipement pour appliquer les pesticides de traitement des plantons de pommes de terre ou des semences de céréales, en vue du 1er avril 2007, date à laquelle ces personnes doivent posséder un certificat d'applicateur de pesticides de classe D; et
- Un nouveau règlement sur les pesticides domestiques est entré en vigueur à la suite de vastes consultations publiques sur l'utilisation et la réglementation des pesticides à l'Î.-P.-É.

Administrative Services Division

Mandate

The Administrative Services Division provides financial, human resource and administrative services to department personnel. The division has the overall responsibility for preparing and monitoring the department budget and providing financial analysis and advice to department management. Human resource management support for the department is provided by the division in areas such as recruitment and selection, position management, orientation, training and planning. The division processes all financial and payroll transactions; and is responsible for various administrative services such as reception, vehicle management, telecommunications system administration, accommodation requirements, records management activities, information technology services, risk management, freedom of information and protection of privacy co-ordination, and occupational health and safety program planning.

Department Staff Summary

With the creation of the Forests, Fish and Wildlife Division, the decision was made to relocate the staff who worked with Fish and Wildlife from the 4th Floor Jones to the Upton Forestry Office. This move would provide an opportunity for the Forests, Fish and Wildlife Division to work co-operatively as a unit.

The Investigation and Enforcement Section moved from the Pollution Prevention Division to report directly to the Deputy Minister. This section provides support to all divisions of the department.

Permanent Position Establishment (as of March 31/07)		
	Full-time	**Part-time**
Pollution Prevention	17	0
Water Management	30	5
Administrative Services	20	3
Energy	04	0
Forests, Fish and Wildlife	37	32
Total	**108**	**40**

In addition to the above established positions the department employed 59 casual employees and 61 students during the fiscal year 2006/07.

Permanent Position Establishment (as of March 31/06)		
	Full-time	**Part-time**
Pollution Prevention	22	4
Water Management	29	5
Administrative Services	11	0
Energy and Minerals	3	0
Forests, Fish and Wildlife	35	23
Total	**100**	**32**

In addition to the above established positions, the department employed 57 casual employees and 57 students during the fiscal year 2005/06.

Department Financial Summary

2006/07 Actual Expenditure and Revenue			
Division	**Original Budget**	**Revised Budget**	**Actual Expenditure/Revenue**
EXPENDITURE BUDGET:			
Department Management	$1,044,900	$1,096,100	$1,053,355
Pollution Prevention	$1,464,600	$1,499,100	$1,457,392
Water Management	$2,271,300	$2,175,200	$2,148,699
Administration	$482,900	$487,100	$473,876
Forests, Fish and Wildlife	$6,309,600	$6,172,100	$5,937,758
Energy and Minerals	$645,300	$789,000	$694,005
TOTAL	$12,218,600	$12,218,600	$11,765,085
REVENUE BUDGET:			
Department Management	0	0	$100
Pollution Prevention	$236,100	$236,100	$234,261
Water Management	$402,200	$402,200	$499,857
Administration	$500	$500	$232
Forests, Fish and Wildlife	$1,323,300	$1,323,300	$1,158,779
Energy and Minerals	$105,000	$105,000	$116,927
TOTAL	$2,067,100	$2,067,100	$2,010,156
TOTAL NET	**$10,151,500**	**$10,151,500**	**$9,754,929**

Based upon financial reports dated December 12, 2007.

There were no Special Warrants in the 2006/07 fiscal year.

Freedom of Information and Protection of Privacy Act

The department received six new Access to Information requests under the *Freedom of Information and Protection of Privacy Act* between April 1, 2006 and March 31, 2007. In addition, there were nine previously received requests that were still open as of April 1, 2006, including requests that were under appeal. Thus, there were a total of 15 requests that were active during the 2006/07 fiscal year. Of these 15 active requests, 13 were closed prior to March 31, 2007 and two remained open (one request under appeal).

Access to Information Request Summary from April 1, 2006 to March 31, 2007	
Open requests as of April 1, 2006 (including requests under appeal)	9
New requests received between April 1, 2006 and March 31, 2007	6
Closed requests that were re-opened between April 1, 2006 and March 31, 2007	0
Total active requests between April 1, 2006 and March 31, 2007	**15**
Active requests that were closed between April 1, 2006 and March 31, 2007	13
Open requests as of March 31, 2007 (including one request under appeal)	2

Investigation and Enforcement

This year saw seven full-time conservation officers and three part-time pesticide inspectors carrying caseloads through to the court system, while relaying the message that the department was taking violations seriously and working to improve compliance, through education and enforcement.

The Investigation and Enforcement Section is responsible for protecting the following acts and regulations pertaining to the environment, fish and wildlife, and pesticides:

- *Environmental Protection Act*
- *Wildlife Conservation Act*
- *Natural Areas Protection Act*
- *Unsightly Property Act*
- *Automobile Junk Yards Act*

As well, through formal and informal agreements with Environment Canada, Fisheries and Oceans and the Royal Canadian Mounted Police, the province enforces the following federal acts and regulations related to pollution prevention and wildlife protection:

- *Trespass to Property Act,* related to hunting and fishing.
- *Fisheries Act (CANADA*, related to sport fishing and habitat destruction.
- *Migratory Birds Convention Act (CANADA*, related to the protection of migratory birds
- *Pesticides Control Act*, related to release of contaminants into the environment and potential for destruction of wildlife habitat.
- *Wild Animal /Plant Protection and Regulation of International and Interprovincial Trade Act,* related to the illegal trade and harvesting of wildlife.

- *Planning Act*, related to conservation zones, destruction of sand dunes and coastal habitats.
- *Highway Traffic Act*, related to litter, unsecured loads and other environment related sections.
- *Off Highway Vehicle Act*, related to chasing wildlife and firearms.
- *Small Vessel Regulations*, related to boat safety.
- *Recreation Development Act*, related to hunting, fishing and trapping in parks.
- *Criminal Code (CANADA)*, related to firearms offences and other criminal offences that an officer may come across in the field.

The following table illustrates the violations and warnings recorded between the period of March 31, 2006 and April 1, 2007. There were a total of 282 violations across the province.

Statute	Charges	Warnings
Environmental Protection Act	84	77
Unsightly Property Act	1	-
Off-Highway Vehicle Act	3	10
Highway Traffic Act	3	3
Trespass to Property Act	2	2
Wildlife Conservation Act	18	42
Pesticides Control Act	3	24
Fish and Game Protection Act	-	6
Trails Act	2	2
Total	**116**	**166**

Energy and Minerals Division

Mandate

The Energy and Minerals Division is responsible for the development, implementation and administration of energy policies and programs. The division also regulates and administers hydrocarbon and mineral resources in the province and provides administrative and technical assistance to the Prince Edward Island Energy Corporation.

Highlights

Oil and Natural Gas Exploration

To date, 19 exploration wells have been drilled on or around Prince Edward Island. Natural gas shows have been detected in approximately half these wells but the best indication of a commercial natural gas resource is the E-49 well that was drilled in 1970. Located off the tip of eastern PEI, the E-49 well showed 5.5 million cubic feet of gas per day after a series of drill stem tests.

Oil and natural gas rights have been issued to four companies that collectively hold 12 oil and natural gas permits over 1.1 million acres (445,000 hectares). These companies are Shannon Resources International, Corridor Resources Inc., BP Canada Energy Company and PetroWorth Resources Inc.

No exploration wells were drilled during the period; however, both Corridor Resources and PetroWorth Resources have expressed their intentions to proceed with drilling in the upcoming year.

Energy Database

Maintaining a current database of energy statistics is crucial for the preparation of policy documents and other various reports that deal with energy and the environment. The Energy and Minerals Division tabulates supply, demand and costs of energy fuels used in Prince Edward Island. In addition to acquiring data from a variety of agencies, the division commissions a biannual wood fuel survey to track the volume and pricing of this energy source. This information is not otherwise available from other data providers. Wood biomass represents a significant energy supply for the residential sector and comprises 9.5 per cent of the province's total energy demand.

Approximately 100,000 cords of fuel wood were consumed in PEI during the past heating season based on the past year's wood fuel survey. It was also revealed that 38 per cent of Island households burn some quantity of firewood. Twenty per cent of the province's households utilize wood as their primary heating source.

PEI Energy Corporation Activities – East Point Wind Plant

Assisting the PEI Energy Corporation with constructing the East Point Wind Plant consumed a major portion of the Energy and Minerals Division's time. By March 2007, all 10 Vestas V-90 turbines were commissioned and engaged in the production of electrical power for the provincial grid. With a nominal generating capacity of 3.0 MW per turbine, the 30 MW facility is expected to provide 90 million kilowatt-hours of renewable energy on an annual basis. This is enough electrical

power to meet the needs of 12,500 Island homes. The facility will also provide 9.5 per cent of the province's electricity requirements.

Intergovernmental Committees

Division staff represent the province on a number of intergovernmental committees pertaining to energy and the environment as part of PEI's responsibility as participants in the Council of Energy Ministers and the Joint Ministers of Energy and Environment Ministers. Staff sit on a number of Federal/Provincial/ Territorial committees that deal with various energy issues including electrical reliability and pipeline regulation; and represent PEI internationally on energy issues through the Northeast International Committee on Energy which is a subcommittee of the Conference of New England Governors and Eastern Canadian Premiers.

The Atlantic Energy Ministers' Forum, in which Prince Edward Island continues to be the lead, has served as a useful body for energy officials to discuss and take action on a variety of issues through a co-operative and collaborative approach with their regional counterparts. Utilizing a format of both formal face-to-face meetings and informal conference calls, the forum has dealt with such issues as harmonizing the regulation of oil and gas exploration, sharing energy efficiency information, developing new regional energy efficiency initiatives and preparing the groundwork for greater co-ordination and co-operation by the region's electrical utilities.

Prince Edward Island is the co-chair, with Natural Resources Canada, for the Federal/Provincial/Territorial Renewable Energy Working Group. Promoting the advancement of renewable energy in Canada and examining possible standards or quotas for renewable energy in Canada are among the responsibilities of this working group. It is expected that after the Renewable Energy Working Group delivers its final recommendations to ministers in BC in September, this working group will disband.

The division also provides provincial representation to the Ethanol and Biofuels Working Group. As Prince Edward Island is presently exploring the feasibility of developing biofuel facilities, this working group provides a conduit to expertise from other jurisdictions that have proceeded with establishing ethanol facilities.

Regulatory Matters

In January 2004, the *Electric Power Act* was enacted. This act supersedes the *Maritime Electric Company Limited Act*, which was repealed, and gives broad powers to the Island Regulatory and Appeals Commission (IRAC) to regulate the activities of electric utilities in the province. It also allows for electric utilities to be regulated under a "cost-of-service" regime. This forces electric utilities operating within the province to file with the commission an accounting of all costs incurred, and ensures that these costs were incurred in a prudent fashion, and limits the profits of electric utilities. This will ensure that the Island's electricity consumers are only charged what is fair and reasonable, as determined by the commission, and allows electric utilities to earn a reasonable rate of return.

In the Renewable Energy Strategy, Government identified two regulatory initiatives as integral to the further development of a sustainable energy solution to Prince Edward Island. Those being:

1. Open Access Transmission Tariff to facilitate the development of wind energy for the export market, and
2. Mandating that electric utilities implement demand-side management programs to reduce the intensity of peak demand by five per cent by 2010.

Both of these initiatives are well underway, with MECL submitting its first Demand-Side Management Plan in February of 2007. This plan is currently under review and the Province is expecting to file comments with IRAC. Furthermore, MECL is currently conducting a stakeholder consultation process for its proposed Open Access Transmission Tariff and the final Tariff is expected to be filed by the end of 2007.

PEI EnerPool Program

The EnerPool Program, initiated in 1978, continues to demonstrate the effectiveness of ride-sharing transportation in optimizing energy consumption and reducing traffic congestion. Routes from Souris and Summerside provide weekday transportation to and from Charlottetown.

Government's Response to High Energy Prices

In the fall of 2005, Government announced two programs designed to help Islanders cope with the unprecedented energy prices experienced recently.

The Residential Energy Assistance Program was designed to assist low-income homeowners in making their homes more energy efficient. Through Government's investment of $200 on materials and $100 for labour per household, eligible clients should see a significant reduction in their home heating costs. Air leakage alone can account for up to 30 per cent of a typical home's heat loss. An automatic setback thermostat should easily reduce heating bills by 10 per cent. Initial estimates indicate that the average home should save approximately 20 per cent or over $500 on their annual heating bill.

The Residential Energy Assistance Program provided assistance to over 2700 Islanders over the past two years. Total dollar savings to Islanders is approximately $1.4 million annually.

To provide incentive for all Islanders to make long lasting improvements – to diversify their home heating system and provide some protection against global energy price shocks that we have seen over the past weeks and months – Government had also announced a Low-Interest Loan Program for the purchase and installation of alternative heating systems including wood and wood pellet appliances, solar air and water heating systems, ground-source heat pumps and drain water heat recovery systems.

Government also provides exemptions of provincial sales tax on a host of small-scale renewable energy equipment including small wind generators, solar panels and ground-source heat pumps. There is also a PST exemption on wood and wood pellet stoves until March 31, 2008.

Forests, Fish and Wildlife Division

Mandate

The Forests, Fish and Wildlife Division promotes sustainable forest management and wildlife and habitat conservation on public and private lands. The division manages approximately 30,635 hectares of public land, including 18,900 hectares in Provincial Forests and an additional 8,862 hectares in Wildlife Management Areas and Natural Areas. The lands include 90 impoundments which not only provide important habitats, they also serve as sites for angling, hunting, trapping, canoeing, birdwatching and other outdoor recreation.

The division provides assistance and advice to private landowners, and collects and maintains forest inventory information, wildlife population and habitat data, and other land use information. Work includes producing seedlings for public and private land planting and tree improvement work, and licensing more than 7,960 anglers, 2,940 hunters, 95 trappers and 155 guides on Prince Edward Island. The division provides forest fire suppression on public and private lands, and delivers information programs to engage the public in forest, fish and wildlife issues.

Highlights

In April 2006, new *Ground Hemlock Harvest Regulations* came into effect. Established under the *Wildlife Conservation Act*, the regulations create a harvest season and require everyone involved in the commercial harvest or purchase of Ground Hemlock to complete mandatory training, become licensed, offer contracts to landowners, and maintain proper records. Over the year, 13 training courses were offered to harvesters and buyers, with some 160 people completing the harvesters course, and 10 completing the Buyers Course. Forest owners who harvest on their own lands do not have to complete the harvest course.

In October, the Province released *Moving to Restore a Balance in Island Forests*, a new forest policy for Prince Edward Island. The policy was developed through an extensive public and stakeholder consultation process in 2005. It offers a vision of enhanced forest quality and includes goals designed to increase forest restoration, manage forest lands for a diversity of species, products and values, increase landowner and public awareness of forests, build private sector capacity and strengthen the Island's value-added sector.

In November, the department, in co-operation with the Tracadie Area Residents for Resource Protection (TARRP) group, announced the creation of the *Eagles Landing Tracadie Cross Bog Natural Area*. This area includes two properties totaling 61 hectares, and contains a representative mixture of species found in a typical Island bog, as well as some mixed hardwood and white pine, and two provincially uncommon plant species (one of which is the White-Fringed Orchid, one of the rarest plants on the Island. The other is Royal Fern.) *The Eagles Landing Tracadie Cross Bog Natural Area* will be used to teach landowners, school children and the public about these unique ecosystems and the need to conserve and protect them.

In December 2006, staff from the Fish and Wildlife program moved from the Jones Building to the J. Frank Gaudet Tree Nursery complex in West Royalty. This move is a step in the continued integration of the Forests, Fish and Wildlife Division.

In December, the department fulfilled one of the commitments of the new forest policy with the release of Prince Edward Island's first-ever *Public Land Atlas*. This atlas identifies public lands such as Wildlife Management Areas, Provincial Forests and Natural Areas which are open to the public for uses such as hunting, fishing, hiking, biking and bird watching.

The Public Forest Council, in co-operation with the PEI Model Forest partnership, the Forests, Fish and Wildlife Division and the Wood West Initiative, developed a concept for a Landscape Level Forest Management Project. The group decided to focus on the Northam Ridge area of central Prince County and hosted a well-attended information session for area landowners in February, 2007. The intent of the project is to encourage local landowners to develop goals for their forest land and try to realize those goals by exploring their forest management options which address a host of local economic, social and environmental factors.

The PEI Model Forest Network Partnership hosted a Forest Economics and Legal Issues Workshop for landowners in March 2007, in Miscouche. The partnership asked a local lawyer and an accountant to speak on topics such as liability, estate planning and taxes.

Forest Information

The Forests, Fish and Wildlife Division Information Program co-ordinates general awareness and youth education programs related to Island forests, and provides communications support and planning services to the director, managers and staff from the division's various programs.

Fifty-two radio segments were completed for *Agriculture Today*, a weekly show which runs on several Island radio stations. Work continued on *ForestNet*, a monthly newspaper column which features topics of interest to the Island's forest community and focuses on increasing the profile of web-based resources related to Island forests and landowners. The website continued to be maintained and upgraded.

The new forest policy recommends the development of a consistent signage program for the public lands managed by the division. The Information Officer worked closely with public land managers to develop a consistent and attractive new signage program for Provincial Forests, Wildlife Management Areas, Natural Areas, and Ponds and Wetlands. The new signage program will be launched in 2007.

The division was responsible once more in the development of the annual ENVIROTHON, a voluntary science education program for senior high school students which emphasizes basic science skills in forestry, soils, aquatics and wildlife. It is a co-operative effort with the Provincial Forest program, and staff from other divisions, departments and agencies across Prince Edward Island, and the event was held in October 2006. Ten teams from Charlottetown Rural, Bluefield, Colonel Gray, Kensington, Birchwood and Three Oaks schools competed in the 2007 Provincial Forest ENVIROTHON. A team from Bluefield won the overall competition and has been invited to the 2007 Canon ENVIROTHON competition in New York.

The division worked with Canadian Woodlands Forum, and other forest sector partners from across the region to develop and host the 2006 Atlantic Teachers Tour program. For the first time, teachers from across Atlantic Canada visited PEI as part of the 2006 program. Five Island teachers were sponsored and featured stops included a private woodlot, JD Irving's Georgetown Timber mill, and Royalty Hardwoods in Pooles Corner. Teachers also visited forests in central Nova Scotia learning about the science used to manage Maritime forests, exploring the economic and social aspects of large and small forest-based industries, and examining the range of forest sector employment opportunities for their students.

Logistical and communications support continued for the Public Forest Council and PEI Model Forest Network Partnership program.

In 2006, communications assistance was provided to the department's Watershed Management program in its development of *A Guide to Watershed Management Planning.* This guide is designed to help Island watershed management groups improve their ability to gain and maintain public support for efforts to improve local water resources.

Market Development

The Market Development Officer works with valued added wood products manufacturers to explore new market and product lines, develop connections between landowners and end product users, and increase awareness of the Island's potential to produce high quality forest products in local, regional and international markets.

During 2006/07, the Market Development Officer worked with the Wood West Network Initiative (WWNI), a non-profit group which focuses on improving the forests of western PEI and accessing more locally grown wood for value added production. WWNI and the market development officer participated in a series of meetings that led to a community forest management project sponsored by the Public Forest Council and the PEI Model Forest in the Northam area. The Market Development Officer also helped to organize a series of non-timber forest products workshops for both staff and the public.

The Market Development Officer continued to work closely with Wood Products PEI, an industry association, assisting them with the ongoing development of the PEI Virtual Wood Yard, and with the Wood Products Group and other agencies, departments and NGOs.

Another notable project was the organizing and hosting of a facilitated meeting of industry representatives to address the topic *Barriers to Using PEI Wood.* This meeting encouraged open and frank discussions on the opportunities and challenges facing the Island's forest community and value added processing sector. Many excellent ideas were brought forward and they will be used as the basis for the development of future strategies for the sector.

In order to gain a better understanding of the link between the resource and the value-added manufacturers, the Market Development Officer organized a managers tour of value-added businesses in western PEI.

Provincial Forests Section

Provincial forest land is managed to encourage a range of economic, environmental and social benefits. Staff continued to implement and demonstrate sustainable forest management on the 18,900 hectares of land managed by the program through a combination of tendered contracts, public partnering and on-site labour.

In 2006, the Provincial Forest Program planted 152,600 tree seedlings of 16 species on 84 hectares of the provincial forests. Some 53 hectares of manual plantation maintenance and 24 hectares of stand improvement was conducted on these lands. A total of 46 hectares of recently harvested land was site prepared to allow planting in 2007. A forest access bridge was repaired, 0.3 km of new provincial forest road was constructed, 105 km of roads were maintained, 11 km of right-of-way were cleared and six culverts were installed.

Under the supervision of provincial forests staff, seasonal forest workers implemented manual plantation maintenance on 17.5 hectares, pruned six hectares of plantations for value-added timber production, conducted site reclamation on 6.5 hectares of declining softwood, interplanted 32,400 seedlings to improve biodiversity, and removed dangerous trees and pruned branches for the inaugural Legends of Golf event. Using a mixture of partial and full harvesting techniques, 57 hectares of softwood and mixed wood were tendered for harvest by local sawmills. Provincial forest tenders were offered on-site preparation, fuel wood, harvested softwood and poplar, standing timber and balsam fir tips. Along with tendered sales of harvested wood and balsam fir tips, this brought in revenues of $157,600 in 2006-07.

Technical assistance was provided to several schools for the development and planting of nursery beds as well as to Scouts Canada's Trees for Canada, the Batesville Memorial Planting programs and to community hospitals. Support was also provided for the development of community partnerships for new public walking trails, acquisition of new public forest within the 22 Provincial Forest acquisition areas, school and community group education initiatives, chainsaw silviculture worker training for the wind energy and other projects, cutting firewood safely workshops, natural areas designation, community plantings and environmental assessment of public forests. The cleanup of illegally dumped materials on Provincial Forest properties continued and efforts to curb this growing problem on public lands increased.

Signage on the Demonstration Woodlot Trail System was upgraded and replaced. Staff assisted and co-ordinated tours with school and community groups, the Public Forest Council and others. The green, diamond-shaped Provincial Forest identification signs continued to be erected where forest roads join the public highway system on properties across the Island. These symbols were included in newspaper ads, on the web, and on the highway map to inform Islanders about the location and management of this public resource, and to encourage visitation and use these properties for outdoor recreation. Work began on an integrated signage system for all departmental lands.

The Eastern Forest District and the PEI Roadrunners Association hosted the 7th annual Provincial Forest Fall Frolic at the New Harmony Demonstration Woodlot in October 2006. There were 129 participants who came to walk the 4.6 km trail or run the 12.3 km trail and enjoy the natural beauty of the provincial

forest in fall. Participants donated over $1,000 for MacIntyre House in Souris. As well, technical support continued for the Southern Kings Consolidated, Eastern Kings Consolidated, Souris Elementary and Cardigan elementary schools, as well as the Village of Cardigan transplant bed program.

The Central Forest District continued forest renewal work and maintenance on the Brookvale Nordic Ski Trail property. Technical support was provided to explore the development of a long hiking trail in the Dromore Provincial Forest/ Wildlife Management Area.

Staff from the Western Forest District assisted with the tree planting partnerships with the Prince County Hospital Foundation and O'Leary Hospital. In addition, the Provincial Forest Mill River Sugar Bush Tours attracted 629 students, 57 teachers and 267 members of the public.

A series of silviculture worker chainsaw safety courses was offered to various agencies across the Island in 2006. The very successful third annual *"Giving Trees . . . Giving Hope"* fund-raising and education initiative with the Canadian Breast Cancer Network was again held at St. Patrick's Road Provincial Forest in May 2006. Other special initiatives included the Agriculture Fun Day and J. Frank Gaudet Nursery Open House as well as the provision of technical advice to minimize the potential impacts of major projects on public and private forests.

Fire Suppression and Prevention

The fire season got off to a very early start with most of the fire activity occurring from March to mid-May. Green-up was very quick this year. It was a more active fire suppression year than recent years but periodic rains and higher levels of individual responsibility in the use of controlled burns kept escape fires minimal from June to August. While nearby homes were saved through the concerted efforts of many fire departments and forestry staff, a severe fire at Ten Mile House caused significant concern as this fire could have escaped to run northward through large woodland areas and homes. In 2006, 36 forest fires were reported in Prince Edward Island and these fires burned approximately 50.48 hectares.

Summary of Forest Fire Statistics for the 2006 Fire Season

Fires			Hectares		
Full	Modified	Total	Full	Modified	Total
36	0	36	50.48	0	50.54

Costs			Values Lost			
Pre-suppression	Suppression	Total	Forest Res.	Interface	Improvement	Total
$ 222,000 Estimate	$ 50,000 Estimate	$ 272,000 Estimate	$ Na	0	0	$ na

On the prevention side, the Fire Weather Index (FWI) was calculated by the Department of Environment, Energy and Forestry from the meteorological data collected at three sites. The wildfire danger rating was provided daily to division offices, other departments and local media through Island Information Service, and was made available during the fire season via telephone or the Internet http://www.gov.pe.ca/go/fwi.

New operating agreements were signed with the Souris, Georgetown, Wellington, West Point and East River Fire departments. Staff participated in the Western Mutual Aid group.

Departmental staff researched the department's smoke complaints and illegal burning to address the challenges around air quality and 806 burning permits were issued to reduce the probability of escape fires and minimize smoke-related complaints.

Forest fire staff participated in a Safety Trade Show that was held as part of the Prince Edward Island Fire Fighters Association Annual Meeting in October 2006. Also in October, forest fire staff participated in an Emergency Response Agency and Equipment Demo that was sponsored by the Metro Fire Prevention Association. This event acknowledged all the different agencies that could be called upon in an emergency.

More links were built to the forest fire website and the web publications were updated. New legislation on working alone was enacted and the Forests, Fish and Wildlife Division led the efforts to research and develop the necessary safe work practice and procedures.

The new Muskeg Bombardier was used as a first response off road tanker in 2006. Significant upgrades were made on one of the two equipment floats used to move the Bombardiers.

Staff provided input into the business planning initiatives of the Canadian Interagency Forest Fire Centre, Canada's forest fire mutual aid corporation. In addition, staff continued participation in the Canadian Wildland Fire Strategy initiative.

Basic forest fire suppression courses were taught in the three forest management districts and staff provided forest fire due diligence presentations to fire departments in the spring. In addition, the Prince Edward Island Manager's Network offered two provincial, federal and municipal due diligence workshops.

In conjunction with recommendations arising from the 2005 Intermediate Fire Behaviour course evaluations and the Forestry and Parks Canada planning team, the two agencies developed and implemented a spring field workshop titled *Strategic Planning for Potential Crown Fires* at Brackley Beach and Dalvay in May 2006. Parks Staff assisted on a 16 hectare fire at Ten Mile House that closed a major highway and disrupted power and utility lines. This fire was a good follow-up experience and helped build working relationships between the two agencies.

Basic forest fire suppression training was provided to volunteer firefighters at several locations using a CD-ROM version of the basic forest fire suppression course. The course was offered under contract for the work teams building the East Point Wind Plant and Maritime Electric Ltd. wind turbine and power line transmission projects.

Enforcement staff developed and presented a workshop on the preparation of enforcement files to improve liaison between various sections and enforcement staff. In September, the department participated in the Atlantic Forest Fire Co-ordinating Committee meeting in White Point, Nova Scotia. Nine staff attended the Weather Ops Workshop in Fredericton, New Brunswick in September 2006.

Two staff members attended the jointly sponsored workshop offered by Public Safety and Emergency Preparedness Canada and the Prince Edward Island Emergency Measures Organization.

Public Forest Council

The Public Forest Council initiatives in 2006/07 included education on non-timber value-added products, landscape level planning, biomass energy and public awareness as well as the exploration of public forest issues.

In 2006/07, Public Forest Council membership was composed of five private sector representatives and two Forests, Fish and Wildlife Division staff members. Representation includes broad-based expertise relevant to the forest resource and the types of proposals which would likely be brought forward. Forest biology, business economics, community development expertise, forest management and tourism industry expertise are also skill sets sought on the council. In addition, a representative of the council participated in the PEI Model Forest Network Partnership planning and project evaluation teams. As the Canadian Forest Service's Model Forests funding was ending, the council reviewed and provided comments to the partnership on the Canadian Forest Service's Forest Communities Program initiative.

In 2006, the council completed its public awareness and promotion campaign utilizing the council's DVD production *The Forest Is More than Just a Bunch of Trees*. The council's members were provided a tour of hardwood planting experiments conducted on lands in the Central Forestry District in July. After many public meetings, representatives of the council attended the October 25, 2006, launch of the Public Forest Policy at the Central Forestry District Office.

Representatives of the council and the Town of Kensington completed the preliminary trail design and conducted a botanical survey of plants along the proposed Kensington Public Forest trail. Work initiated on the trail included pruning and movement of heavier materials.

The council and the PEI Model Forest Network Partnership co-hosted the workshop New Possibilities for Business and Pleasure a non-timber forest products event at Poole's Corner in October. During the summer and autumn, the council worked with the partnership to co-host a series of meetings with the Wood West Network Initiative. This led to the creation of a new partnership which then delivered landscape level education workshops. In addition, the preliminary planning for a forest wildlife workshop in the Richmond area was completed.

Besides these efforts, the Public Forest Council also responded to concerns and requests regarding Public Forest lands on the issue of land transfer and the use of ATVs on public lands.

Private Lands Section

Some 88 per cent of Prince Edward Island's forest land is owned and controlled by thousands of private woodlot owners. The department offers a number of programs and services designed to help private landowners manage their forest lands.

Forest Enhancement Program

Initiated in 2002, the Forest Enhancement Program (FEP) continues to provide forest management advice to landowners and cost-share forest management treatments which enhance wildlife, recreation, bio-diversity and timber values.

In 2006, 92 forest management plans were prepared by private sector consultants. Once these plans were approved by the department, landowners were able to access grant monies for silvicultural treatments such as pre-commercial thinning, riparian zone enhancement and crop tree selection. FEP grants totaled $121,000 for 2006/07.

Forest Renewal Program

The Forest Renewal Program continues to attract landowners interested in receiving technical advice and financial assistance to plant their lands with commercial softwood tree species. In 2006, 1,437,000 seedlings were shipped from the J. Frank Gaudet Tree Nursery to private lands across the province. FRP expenditures and grants totaled $815,00 for 2006/07.

Maintenance was completed on 696 hectares of previously established private land plantations. Client uptake continued to be strong for the pruning and plantation cleaning incentives. Both of these treatments will help to improve the growth and quality of softwood timber and sawlogs.

The Forest Renewal Program continues to be supported by the harvest and processing industry, while landowner demand has remained steady for FRP services.

PEI Model Forest Initiatives

The department continued to be an active participant in the PEI Model Forest Network Partnership project, along with other groups including industry and non-Governmental agencies. This organization has 26 partners involved in consensus building for sustainable forest management.

In 2006, the PEI Model Forest Network Partnership was able to secure core funding of $100,000 from the Canadian Forest Service for the development and implementation of the work plan. Twelve projects were funded to support the Virtual WoodYard and further connections between landowners and forest-based businesses, develop a watershed restoration project, conduct a red pine thinning and utilization trial, study the genetic status of Eastern White Cedar, and offer an upland game habitat management field day. The partnership also developed a proposal for a Landscape Level Planning project in western Prince Edward Island.

The department provided a staff member to serve as a part-time project co-ordinator.

Forest Harvest Trends

Most of the wood harvested each year is cut on private lands. Public forest harvesting usually accounts for less than five per cent of the annual harvest volume.

Recent mill closures in Eastern Canada, combined with declining U.S. housing markets and the high Canadian dollar, have had a major negative effect on forest products markets particularly for softwood products such as studwood and low grade pulp. Stumpage prices offered to Island woodlot owners have been in a steady decline since the highs experienced in the late 1990s. Many forest harvesting contracting companies have either downsized or changed the emphasis of their businesses, and this often means that landowners have difficulty finding markets or workers to carry out management and harvest treatments.

Forest inventory information over the last two decades has predicted a drastic decline in the amount of softwood fibre available for harvest by 2010. Industry's move to increased harvesting in mixed wood stands suggests that the predicted decline in pure softwood stand availability is becoming a reality.

The total log harvest for 2006 was estimated to be 602,000 m^3, down from last year's level of 632,000 m^3 and nearly 20 per cent from the 2004 level of 710,500 m^3.

Softwood Products

The Island's softwood harvest volume peaked at almost 550,000 m^3/yr in 1999. In 2006, the softwood harvest was 308,000m^3, of which sawlogs and studwood accounted for 75 per cent.

Hardwood Products

In recent years, the annual harvest has been estimated to be increasing, primarily due to demand for hardwood fuel. In 2006, hardwood harvested was estimated to be 294,000 m^3.

The fuelwood (mostly hardwood) harvest for 2006 was 230,000 m^3 and contributed an estimated $7.6 million to the provincial economy.

While the volumes required are often small, many of Prince Edward Island's value-added forest products companies have expressed interest in sourcing more raw wood on-island, particularly high quality hardwood logs. The value-added sector is working with various partners to develop ways of connecting local wood users and producers in a mutually beneficial manner.

Harvest Value

The 2006 value of the delivered primary softwood forest products was estimated to be about $18.0 million, while the total delivered value of all wood products was estimated to be $30.2 million. The secondary wood products manufacturing industry (cabinets, flooring, furniture, etc.) contributed an estimated value of between $20 and $25 million annually to the provincial economy.

Production Development Section

The J. Frank Gaudet Tree Nursery produces high quality improved tree seedlings for reforestation projects and wholesales native trees and shrubs to the retail landscape trade. In 2006, some 1.9 million seedlings, representing 13 softwood, 11 hardwood and 16 native shrub species were shipped for the planting of cutovers, riparian zones, hedgerows and special areas on private and public lands across the province.

Staff offer tours of the nursery to interested groups and individuals to show them Prince Edward Island's largest seedling production facility. In 2006, 436 people from school and youth groups, conservation groups and the

public toured the J. Frank Gaudet Tree Nursery facility. In addition to these tours, 462 people visited the nursery during Environment Week 2006. Displays included public and private forests, riparian zone management, environmentally friendly agricultural practice, horticulture, farm safety and many other matters related to the Island's natural resources.

The nursery also offered advice and assistance on insect and disease problems for ornamental plants, trees and shrubs, as well as advice on landscape problems to thousands of property owners. Staff provided insect and disease analysis for nearly 468 samples and made 22 site visits to individuals and Island communities to provide detailed information on landscaping and plant health issues.

Tree Improvement

The Tree Improvement Program produces the seed required for the nursery through the controlled cross breeding of selected high quality representatives of several Acadian Forest tree species.

In 2006-07, measurements of eight test sites were carried out, recording growth and survival. Maintenance was also done on 10 tests.

The Dover Seed Orchard provided 3.5 kilograms of improved seed. Survival surveys were carried out on four test sites along with the thinning of four test sites.

An ongoing maintenance program of the Dover Seed Orchard was carried out along with the establishment of a black ash seed collection area.

In 2006, staff helped to host the annual Canadian Tree Improvement Association meeting in Charlottetown.

Greening Spaces Program

The Greening Spaces Program encourages tree planting projects with communities, schools and community groups. In 2006/07, the program supported nine school and 34 community projects, as well as 49 hedgerow/shelterbelt clients. Some 55,000 native trees and shrubs were planted to diversify public properties, buffer prevailing winds, provide shade, reduce noise, protect waterways and provide habitat for wildlife. Staff also presented courses on ornamental horticulture, plant selection, pest control and pruning.

Resource Inventory and Modeling Section

Land Use and Property Information

The Resource Inventory and Modeling Section continued to provide geographic information to the public through the production of hard copy maps and PEI Land On-Line www.peilandonline.com, an online mapping services for Island landowners. In addition, staff assumed responsibility from Provincial Treasury for the provision of property maps to the public.

The program also produces land use maps for forest sector clients, members of the public and the Environmental Farm Plan program.

National Forest Information System

Resource Inventory and Modelling staff provided ongoing support to update and maintain information on PEI forests for the National Forest Information System website http://www.nfis.org. This website provides public access to national forest information and data.

Atlas Production

A new Public Land Atlas was produced in 2006 to support the commitments of the new forest policy. This atlas shows the location of all provincially owned lands such as Provincial Forests, Natural Areas and Wildlife Management Areas. A second atlas made of water resistant material was created for use by field staff.

Agriculture Models

Geographic Information System models were built for the Department of Agriculture, Fisheries and Aquaculture's Ecological Goods and Services Program. These models identify land which could be eligible for compensation if they are taken out of agricultural production.

Electoral Polling Divisions

During the summer of 2006, staff were asked to create new digital polling districts for the current electoral boundary map. The 27 electoral districts were broken into divisions containing approximately 350 voters each and then each one was legally described. This information was then posted on the Elections PEI website.

Ecosystem Management

Staff provided support to the MacPhail Woods Ecological Forestry Project in the form of mapping, Geographic Positioning System expertise, forestry equipment, discussions on potential silviculture prescriptions and a review of Public Forest Land Operational Plans for each property.

Under the new forestry policy, the department made a commitment to develop an Ecosystem-based Forest Management Manual, so staff began work on a first draft. Once the manual is finalized, the standards and concepts will be incorporated into forest management programs for public and private lands.

Climate Change Research

Work continues on mapping the 1958 forest outline. The information will be used to look at forest change under the Kyoto Agreement.

Growth and Yield

Staff continued to measure forest growth and change through the continued assessment of Permanent Sample Plots (PSPs) and plantation assessments. More than 350 PSPs are located in a variety of forest types across the province and measured on a three-year cycle. Many of these plots are being measured for a fifth time, providing valuable detail on growth and change.

Plantation assessments are continuing to ensure planting quality (Year 0 assessments) and to monitor the early success and growth of plantations (Year 5, 10 and 15 assessments). This information is now available through the Private Land Management System.

Plantation Mapping

Plantations are mapped as they are established through a combination of GPS and GIS technology. This enables forest managers to keep track of all forest plantations and any followup activities or treatments.

Impoundment Survey

The province owns 80 properties that have or had water control structures. At each site, the following information was collected: project name, community location, GPS location, catchments area, water surface area, river system, watershed, construction (by pass or concrete), fishway (yes/no), passable (yes/no), possibility of washout (high, medium, low), and comments (silt, beavers, leaky, conditions of structure).

Freshwater Fisheries Section

Wildlife Conservation Fund

The Prince Edward Island Wildlife Conservation Fund (WCF) was created in 1998 to support conservation initiatives led by community-based groups. Money for the fund comes from a $13 contribution made once per year by each licensed angler, hunter and trapper. The money raised through the Wildlife Conservation Fund is distributed to wildlife conservation projects across the province following the review by the WCF Advisory Committee of submitted applications from groups and organizations. In 2005, the committee was newly appointed as an independent body by the Provincial Government. As of January 2006, the PEI Wildlife Conservation Fund is overseen by a committee composed of 10 members including:

- three representatives from the angling community,
- three representatives from the hunting community,
- one representative from the trapping community,
- one representative from community watershed groups,
- one representative of non-consumptive users such as birdwatchers and hikers, and
- one representative from the Department of Environment, Energy and Forestry.

Island Nature Trust serves as the day-to-day administrator of the Wildlife Conservation Fund, under the direction of the Wildlife Conservation Fund Committee.

In 2006, the PEI Wildlife Conservation Fund Advisory Committee received applications from 40 groups, over-subscribing the fund by a factor of three to one. The committee approved funding for 26 projects, although two projects were not initiated. Total funds for projects in 2006 were $104,839. See complete report at http://www.gov.pe.ca/photos/original/2006WCF-report.pdf.

Public Awareness and Education

Staff from the section are regularly called upon to make presentations to various schools and community organizations.

A youth waterfowl workshop was held in September with over 100 participants. Youth ages 12 to 18 were exposed to a variety of outdoor topics including, outdoor survival, wildlife identification, wildlife management, firearm safety, bow hunting and trapping.

Environment Futures Program

The Environment Futures Program (EFP) helps to educate high school and university students on the importance of wildlife protection and habitat enhancement. There are 10 crews consisting of three crew members and a supervisor, typically high school and post secondary students returning to school. A competition and interviews were held for supervisor positions, with priority given to individuals enrolled in the fields of biology or environmental study. Crew members are provided through the Employment Development Agency.

Crews worked closely with Government offices and non-Governmental environment and community groups to complete a variety of projects. These included enhancement of fish and wildlife habitats, soil erosion control, protecting and enhancing natural areas, environmental awareness, research and educational activities.

Students completed 31 registered projects across the Island in 2006 and assisted department staff with numerous other activities. Projects included 11 stream enhancement projects, 10 tree planting sites, and 12 garbage cleanup sites. Special projects included the Community Aquaculture Monitoring Program (C.A.M.P.) with the Department of Fisheries and Oceans, an Invasive Species Education Campaign for Aqauculture and Fisheries, and sign and trail maintenance for Forests, Fish and Wildlife.

Eastern Habitat Joint Venture

This program focuses on the protection, restoration and enhancement of wetland habitats within the province. A primary focus of the Eastern Habitat Joint Venture Stewardship Program (EHJV) is to work with the agricultural community to remedy the detrimental impact of farming practices on the Island's streams and wetlands. Direct financial assistance has been provided in past years in support of agricultural soil conservation projects and fencing livestock from watercourses and wetlands, for example. These types of projects are currently funded through the Canada-Prince Edward Island Stewardship Program (CPEISP), as are Constructed Wetlands and Agricultural Wetland Restoration projects designed to enhance or restore wetlands associated in agricultural areas. A total of three farm ponds were constructed (3.75 hectares) and six wetlands (12.25 hectares) were restored with funding support from the CPEISP in 2006. Under the Stewardship Program of EHJV, another 2.5 hectares at two rural wetland sites were restored under the Rural Wetland Restoration in the province in 2005. In total, 18.5 hectares of wetland habitat was conserved through these activities.

The EHJV also acquires wetland properties, often in support of the Provincial Protected Areas and Biodiversity Conservation Program. One 24 hectare property, with 9.7 hectares of fresh water marsh with 11.7 hectares of associated upland habitat, was acquired in 2006. An ongoing biological control program to contain Purple Loosestrife, an invasive plant that is extremely harmful to native wetland habitat, was continued in 2006.

Protected Areas and Biodiversity Conservation

In late 2005, the *Natural Areas Protection Act* (NAPA) was amended to require public consultation prior to designating lands as natural areas under the act. It was also changed to permit the de-designation of public lands designated as natural areas following a consultation process. Grounds for de-designation include loss of the feature for which land was protected or the wish of the local community to develop the designated lands.

In June 2006, a public consultation process took place in Tracadie Cross regarding the possible designation of 61 hectares of bog and associated upland in that community. The properties were subsequently designated under NAPA. In September 2006, consultations took place concerning the possible de-designation of land at St. Chrysostome, including 0.3 hectares designated under both NAPA and the *Wildlife Conservation Act* and an additional 0.8 hectares under the *Wildlife Conservation Act*. The land designated under NAPA was subsequently de-designated by Ministerial Order and the Regulations of the St. Chrysostome Wildlife Management Area were amended to reflect the de-designation.

The department continued its representation on the Basin Head Lagoon Ecosystem Conservation Committee. The designation of the Basin Head Lagoon Marine Protected Area

was formalized in 2005 under the federal *Oceans Act.*

Accord for Protection of Species at Risk

The Forests, Fish and Wildlife Division continued to participate in national processes under the Accord for the Protection of Species at Risk. The publication, Wild Species 2000: The General Status of Species in Canada (http://www.wildspecies.ca) was the first work by knowledgeable experts and volunteers in Prince Edward Island and across Canada to assign status ranks to species in the country. An updated publication *Wild Species 2005: The General Status of Species in Canada* became available online in 2006.

Species groups included for Prince Edward Island and numbers (bracketed) are vascular plants (1,052); freshwater mussels (2); tiger beetles (5); odonates, e.g., damselflies and dragonflies (66); fishes (27); amphibians (10); reptiles (three); birds (337); and mammals (35). The coarse evaluation of risk for the 1,537 species indicated the following:

- Extirpated: 12 (<1%)
- Extinct:1 (<0.1%)
- At Risk:3 (<0.1%)
- May be at Risk: 208 (14 %)
- Sensitive: 99 (6%)
- Secure: 607 (39%)
- Undetermined:80 (5%)
- Not Assessed: 2 (<0.1%)
- Exotic: 375 (24%)
- Accidental: 150 (10%)

The province continued to support conservation programs for the endangered piping plover on Island beaches and participate in the National Piping Plover Recovery Team.

In 2006, the province also partnered with the Island Nature Trust in the Bald Eagle Guardian Program. This complements the Adopt an Eagle Program and allows interested people to provide scientific information to the Fish and Wildlife Section and monitor the nests for success and human disturbance. Eight new bald eagle nests were also identified this year under this program.

As endangered species legislation was implemented in Canada, the division participated in the meeting of the committee on the Status of Endangered Wildlife in Canada (COSEWIC), and reviewed the degree of endangerment of 86 species of wildlife in Canada.

Wood Harvest on Provincially Owned Land

No commercial harvest activity occurred on wildlife management lands in 2006. Lumber was harvested from provincial wildlife management areas and used to repair fishways and boardwalks on provincial land.

Wildlife Population Assessment and Habitat Section

Status of Wildlife

Waterfowl breeding pairs and brood surveys were conducted in 2006. These surveys provide an annual index of waterfowl production for wetlands across the province and supply essential data for regulatory management decisions. Annual spring breeding pair counts have shown a stable to increasing population trend from 1995 through 2005.

Weekly surveys of wintering waterfowl were conducted on 33 sites in January and February. Results provide an index to changes in numbers, species composition and distribution of wintering waterfowl. Survey results are given in Figure 1.

Efforts were also directed at banding locally produced ducks with the assistance and co-operation of the Canadian Wildlife Service. Waterfowl banded in the summer of 2006 included black ducks, blue-winged teal, green-winged teal, american widgeon and mallard. Three hundred black ducks and mallards were banded during the winter. The spring Canada goose banding program continued in 2006, using rocket nets to capture the birds. Bald eagles were banded in a continuing effort to gain information on migration patterns and mortality factors for eagles raised at Island nest sites.

The November Canada goose aerial survey program continued in 2006 in co-operation with the Canadian Wildlife Service. The count was low and represented a decline of 41 per cent from the 10-year average. Black ducks counted during the survey increased from the previous year but were 10 per cent below the previous 10-year average. During the survey, 17,692 Canada geese and 13,222 black ducks were observed.

Other wildlife surveys conducted during 2006 included the cormorant nest counts, woodcock singing ground survey and the annual monitoring of the wild fur industry.

Wildlife Management

Two trappers were hired from April to October to mitigate highway beaver problems across the Island. This reduced beaver problems, saved the Department of Transportation and Public Works valuable machine time and resulted in improved beaver management.

The division continued to work with the Department of Agriculture, Aquaculture and Fisheries, the Sheep Breeders Association, and the Federation of Agriculture in dealing with problems associated with coyotes. The division continued to monitor the population status, reproduction, food habits and annual harvest. As well, efforts continued to educate the general public on dealing with coyotes.

Geographic Information System

As part of the Corporate Land Cover and Land Use Inventory (2000), the Fish and Wildlife Section continued to update the Wetland Inventory in the Government Geographic Information System (GIS). The section continued to maintain and improve other resource layers and develop more effective means of delivering GIS products within the department, interdepartmentally and externally.

The need to improve the accuracy of both the watershed and hydrographic (watercourse) layers is a priority. Most Government resource agencies, as well as numerous community groups concerned with watershed management, use the watershed and hydrographic layers to

develop watershed management plans, calculate soil erosion risk indices, develop groundwater models, produce buffer zone calculations, etc. More precise layers are needed to meet these objectives. Both the watershed and watercourse layers are being updated.

The Forests, Fish and Wildlife Division is represented on both the GIS Co-ordinating Committee and the GIS Technical Committee which serve to develop and implement a policy framework for creating and distributing Government GIS data.

Firearm Safety/Hunter and Trapper Education

Under a five-year contract signed in 2003, the Forests, Fish and Wildlife Division subcontracts the delivery of the Canadian Firearms Safety Course to the PEI Wildlife Federation. The PEI Wildlife Federation delivers both the federal non-restricted and restricted firearms safety courses.

In 2006, 13 volunteer Canadian Firearms Safety Course instructors provided training and testing for 534 people, with 362 taking the non-restricted and 159 taking the restricted firearms safety courses. There were also 23 people who challenged the test with 19 challenging the non-restricted test and four challenging the restricted test. (Non-restricted refers to long guns, for the most part hunting rifles and shotguns. Restricted refers mostly to handguns, used by target shooters and law enforcement officers.) Most of the restricted firearm students were from the Atlantic Police Academy program. The division also monitors the delivery of the training, maintains a file system for clients who have completed the Canadian Firearms Safety Course Training, maintains an inventory of firearms used for training, and co-operates with the Provincial Firearms Office and the Atlantic Police Academy.

The PEI Wildlife Federation is also responsible for the delivery of the provincial hunter education training. In 2006, the Hunter Education Program was delivered to 174 students. There are 20 qualified hunter education volunteer instructors although only eight were active this year. The Forests, Fish and Wildlife Division maintains the legislative requirements to issue Firearms Safety Certificates required by all hunters.

No bow hunter courses were held this year. Bow hunters require this special course if they wish to hunt using a bow in other provinces. The department worked co-operatively with the Prince Edward Island Traditional Archery Association to encourage more hunters to try bow hunting.

A youth exchange was completed in partnership with Nova Scotia. A young person from O'Leary was given the opportunity to hunt with his father in Nova Scotia and a youth and his father from Nova Scotia were given the opportunity to hunt in Prince Edward Island. In addition they were supplied with hunting gear from a variety of sponsors.

Figure 1: Total maximum waterfowl counts at 33 winter survey sites by species.

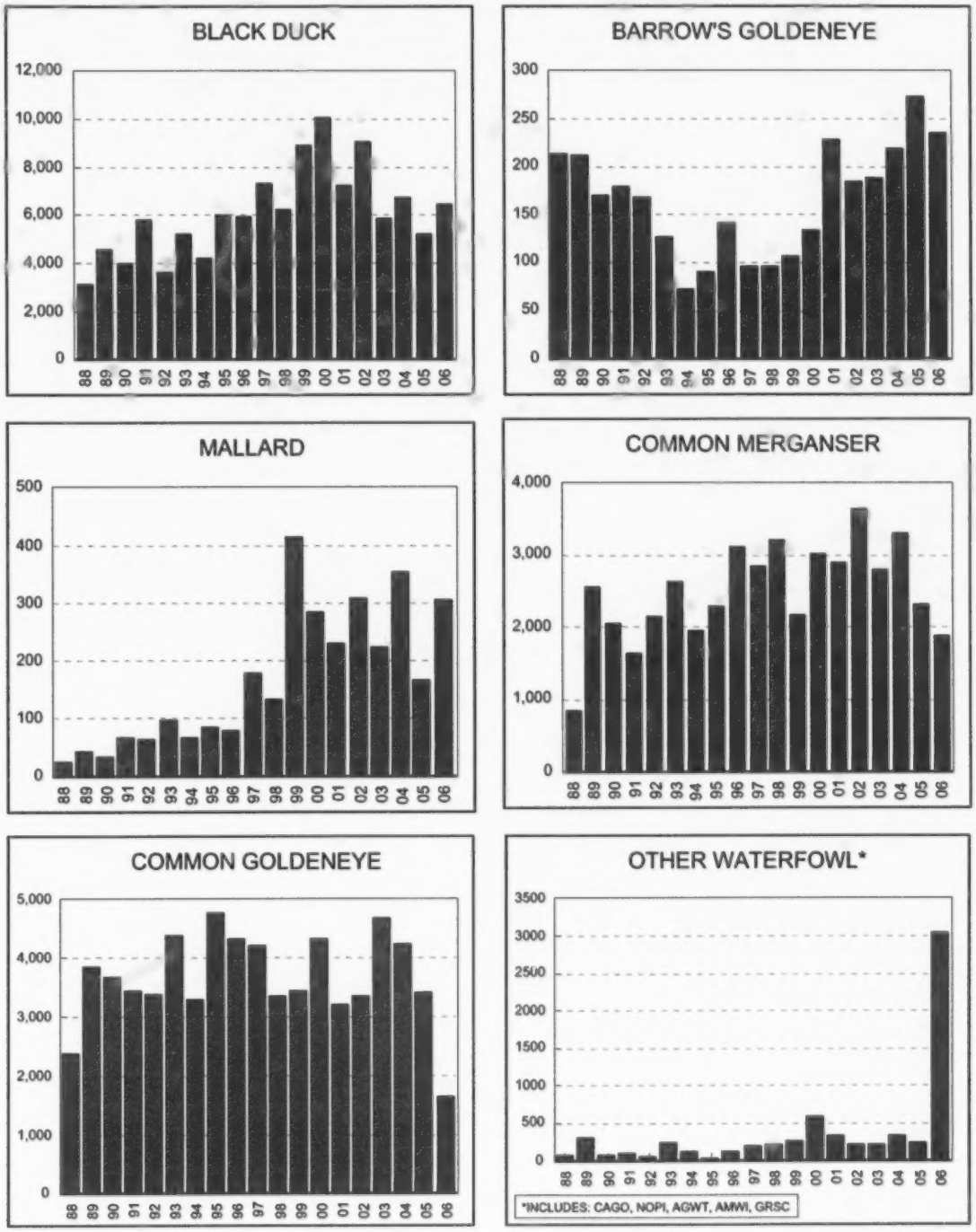


Figure 5

Trapper education is required for all first-time trappers. Training is conducted jointly by the department and the Prince Edward Island Trappers Association. Six students received training in 2006, at courses held in Southampton and Wellington. Advanced trapper training courses were offered to all licensed trappers during 2005 and 2006. The mandatory course covered snare construction, snaring techniques, dog-proofing snares and traps, under-ice sets for beavers and recent advances in humane trapping. All told, 116 licensed trappers received the advanced training. This represents virtually all active trappers in PEI.

Freshwater Fisheries Section

Management and Angling Regulations

During the winter of 2005/06, more than 40 representatives of angling and watershed restoration groups from across PEI met to present various recommendations for consideration of changes to existing regulations. While there was not agreement on every recommendation presented, there was consensus on four items: reducing the creel limit from 10 to six, reducing the size limit (with details to be worked out at a later date), allowing barbless hooks, restricting treble hooks (single hooks only), and support for a voluntary conservation licence. In an attempt to obtain input from the larger angling community, a tear-out survey was included within each angling summary distributed to purchasers of an angling licence in 2006. In all, 285 fully completed survey questionnaires were received. It would appear that while the groups most active in fisheries enhancement (and the anglers who support these groups with their volunteer efforts) would like to see changes to provincial angling regulations, the majority of anglers who responded to the survey support the status quo.

Results included:

- 64 per cent supported maintaining the current creel limit of 10 fish per day;
- 73 per cent supported having the same creel limit for all rivers, rather than river-specific regulations;
- 77 per cent supported maintaining the opening day as April 15;
- 51 per cent opposed mandatory use of barbless hooks; and
- 44 per cent supported the concept of trophy trout tags, restricting the number of large trout that could be retained.

Monitoring and Assessment

Salmon redd surveys were conducted on North Lake Creek, Cross River and Little Trout River (Richmond). All index rivers (Mill River, Little Trout River (Richmond), Wilmot River, West River, Morell River and Souris River were electrofished to determine salmonid populations for long term monitoring.

Angler creel surveys were carried out for 1 ½ days on the Morell River (April 15 and 16) and Trout River – Coleman (May 1 and 2). Scale samples were collected from a number of fish during the survey.

The division continued to collect fish in selected areas for analysis of mercury as part of a joint initiative with the New England Governors and Eastern Canadian Premiers Mercury Task Force. Fish were sampled from the Valleyfield River and O'Keefes Lake, with testing completed at Environment Canada's Environmental Quality Section Laboratory in Moncton, New Brunswick. The health advisory regarding consumption of fish from O'Keefe's Lake remains in effect. The division will continue to monitor mercury levels in fish from

selected areas of Prince Edward Island on an annual basis.

Fish Stocking

No fish were stocked into Island rivers in 2006. All fish held at the hatchery were released from the Cardigan Fish Hatchery in May 2006 when previous funding for the stocking program was exhausted and no new funding was secured. At that time, roughly 5,000 fry (1-2 g) brook trout were stocked into the West River and Brudenell River, 7,500 into Mill River, and 10,000 into Morell River. Approximately 25,000 Atlantic salmon fry were released into the Morell River and 10,000 to the West River (semi-natural pond). The PEI Wildlife Federation stocked 5,000 eight-inch rainbow trout into O'Keefes Lake using funds obtained from the PEI Wildlife Conservation Fund.

Fish Kill Investigation

The fisheries biologist responded to calls regarding dead Gaspereau observed in Big Pond, East Lake and West River. It is common for large numbers of Gaspereau to die in the spring as a result of post-spawning stress.

Angler Participation

The Family Fishing Weekend was once again held during the long weekend in May. In support of this venture, no angling licence was required to fish from May 19 to 22, 2006.

Impoundment Management

Management activities continued at a number of impoundments across the province. Baffles were replaced at Millvale Pond, consistent with the design structure. Baffles were also replaced at Cass's Pond, but the elevations were modified slightly at the request of the Department of Fisheries and Oceans in an attempt to facilitate passage of smelts. Arsenault's Pond in Egmont Bay received considerable attention in 2006. As part of Phase I, a new concrete four-celled fish ladder was constructed at the dam and plywood baffles were installed in the run-around to facilitate fish passage. The Department of Transportation and Public Works armoured the run-around adjacent to the roadway.

Pollution Prevention Division

Mandate

The Pollution Prevention Division has a mandate to promote the protection and responsible stewardship of our environment and natural resources. This includes responsibility for quality of our air, water, soil and natural habitat; assessing the impact of undertakings on human health, animal health and the environment; and the management of pesticide use in the province. Activities which help promote public acceptance of responsibility for the environment and sustainability of our natural resources are included in this mandate.

Overview

The Pollution Prevention Division administers a wide range of programs, legislation and activities which are designed to protect the quality of water, soil, air and landscape in the province. The activities include measures to preserve, control or enhance: outdoor air quality, the ozone layer, climate change factors, noise, solid waste management, management of hazardous waste, litter, excavation pits, unsightly properties, automobile junk yards, beverage containers, pesticide use, petroleum storage tanks, used motor oil, tires and special projects. Promoting pollution prevention and environmental stewardship, and educating all Islanders on responsible environmental practices are key initiatives of the division. Staff participate on a number of provincial, regional, national and international committees regarding pollution prevention, air quality, climate change, noise, pesticide use and management of waste and toxic substances.

The division is responsible for the following legislation and regulations.

- *Environmental Protection Act*, particularly Sections 9, 20 and 24
  - Air Quality Regulations
  - Ozone Depleting Substances Regulations
  - Excavation Pits Regulations
  - Lead Acid Battery Regulations
  - Litter Control Regulations
  - Used Oil Handling Regulations
  - Petroleum Storage Tanks Regulations
  - Waste Resource Management Regulations
- *Pesticides Control Act*
  - Pesticide Control Regulations
- *Automobile Junk Yards Act*
- *Unsightly Property Act*
  - Unsightly Property Regulations

Air Quality and Hazardous Materials Section

Petroleum Storage Tank Program

Petroleum hydrocarbon products are by far the most commonly used hazardous materials in the province and are an essential component of our Island economy. The department continues to lead the country in preventive efforts to avoid petroleum spills, and in using the most up-to-date science to determine the necessary

corrective action when petroleum spills do occur.

On the preventive side, the Petroleum Storage Tank Program focused on the handling and storage of petroleum products according to the provisions and regulations of the *Environmental Protection Act*. In 2006, there were 11 underground storage tank spills compared to 167 in 1992 (when the program became fully active); and 121 aboveground home heat tank spills compared to 293, 162, 191, 179 and 146 spills in 2001, 2002, 2003, 2004 and 2005.

In 2001, regulations were amended to include the replacement age for the installation of aboveground home heat tank systems. Since then, 520 installers and inspectors have been certified and licensed; and 35,711 home heat tanks have been inspected, tagged and registered.

In 2006, the Oil Giveaway Campaign was launched for a second consecutive year. This initiative between the department and the Canadian Oil Heat Association was aimed at encouraging Islanders to have their home heat oil tanks inspected and tagged. The campaign included an extensive public awareness program emphasizing the impending deadline to have tanks inspected.

Atlantic Canada Harmonized Approach on Petroleum Contaminated Site Management

The division continued its participation in the Atlantic Partnership in Risk Based Corrective Action Implementation. This group has a mandate to develop and maintain the technical tools required to manage the risk-based corrective action process, harmonize the management processes and best practices among the four provinces, and manage implementation within the region. Members of Atlantic PIRI include regulators from the environmental protection departments of the four Atlantic provinces, representatives from Environment Canada, the national petroleum industry, and regional environmental and communications consultants.

The Atlantic RBCA software tool is used in conjunction with the management processes developed by each province. Together, these tools are designed to facilitate the cleanup of sites, by providing clear guidance that is responsive to local conditions. Efficiency in remediation and management returns properties to full and active use faster, whether the site experienced a recent spill or historical contamination. To ensure site professionals optimize the application of the Atlantic RBCA tools, two advanced-level training sessions were held in 2006. These sessions provided "hands-on" instruction and enhanced the problem-solving skills of 67 professionals in the Atlantic region.

In 2006, 101 reported spill files were closed where contaminated soil removal effectively remediated the impacts from the loss of petroleum products. At sites where the impacts were more extensive, it was necessary to obtain additional technical information to plan appropriate remedial action. Environmental consultants completed Environmental Site Assessments (ESAs), and assessed soil and groundwater to determine the full extent of the spills. In 2006, 24 spill files were closed where ESAs were completed.

In 2006, 80 petroleum contaminated sites were monitored with departmental staff either supervising the on-site cleanup procedures or monitoring a consultant's remedial actions to ensure that the cleanup took place in a timely

manner and to a level that protected both human health and the environment.

Phase I ESAs are commonly required by purchasers or the purchaser's lending institution, although they are not required by the department. The division has been involved since April 1997 in searching records for past activities on a property that could be interpreted as contributing to existing contamination and monitoring remediation efforts. In 2006, 711 Environmental Records Review Requests were completed.

The section continued its participation in the following provincial, regional, national and international programs.

- National Air Pollutant Surveillance (NAPS) Program (federal/provincial)
- Emissions and Projections Working Group (federal/provincial)
- National Pollutant Release Inventory (NPRI) Work Group (federal/provincial)
- Air Management Committee (federal/provincial)
- Air Quality Health Index Management Committee (federal/provincial)
- Atlantic Region Air Issues Team (regional – federal/provincial)
- Air Quality and Acid Rain Steering Committee (regional – Atlantic Canada/New England States)
- Real-time Monitoring Work Group (regional – Atlantic Canada/New England States)
- Canadian Council of Ministers of the Environment, Canada-wide Standards on Mercury (federal/provincial)
- Children's Secretariat on Healthy Child Development (provincial)
- Federal-Provincial Working Group on Ozone-Depleting Substances and Halocarbon Alternatives
- Mercury Task Force (regional – Atlantic Canada/New England States)

National Air Pollutant Surveillance Program

Ambient air samples collected at Charlottetown, Wellington and Southampton NAPS stations provide information to the province and Environment Canada on ground level ozone, sulphur dioxide, nitrogen oxides, mercury, particulate matter and acid rain levels found in the local air. Eighty per cent of the installed equipment operates continuously and sends data hourly to a central computer in Charlottetown for processing and distribution to our partners.

In 2006, a continuous fine particulate monitor and a nitrogen oxides monitor were installed at Wellington, and all of the site computers were updated.

The Air Quality and Hazardous Materials Section continued to provide data for the Air Quality Forecast Program (formerly the Smog Forecast Program launched in June 2000) in partnership with Environment Canada, the Prince Edward Department of Health and Social Services, and the PEI Lung Association. Environment Canada issues the forecast twice a day, at 5 a.m. and 4 p.m., from May 1 until the end of October, and it can be accessed by telephone in each of the three counties, at the Environment Canada website, and from a link at the Department of Environment, Energy and Forestry website. It is a two-day prediction of expected levels of ground-level ozone – the key component of smog. Soon, fine particulate matter will also be used to develop a more realistic air quality forecast.

Current Air Quality Monitoring Equipment Distribution		
Location	**Equipment**	**Sample Frequency**
Charlottetown	Ground level ozone Sulphur dioxide Nitrogen oxides Fine particulate matter ($PM_{2.5}$)	Continuous Continuous Continuous Continuous
Southampton	Mercury Acid rain Ground level ozone Fine particulate matter ($PM_{2.5}$) – continuous Fine particulate matter ($PM_{2.5}$) – 6 day sample, reference standard	Continuous Triggered by precipitation events Continuous Continuous Every 6th day
Wellington	Ground level ozone* Nitrogen oxides Fine particulate matter ($PM_{2.5}$)	Continuous Continuous Continuous

* Operated in conjunction with Environment Canada

Stack emissions testing was conducted at a number of asphalt plants in 2005 and 2006. Where unsatisfactory results were obtained, plant owners were asked to upgrade in preparation for further testing. Annual testing continued at the PEI Energy Systems incinerator, but this time, particular attention was given to mercury and dioxins and furans to assess the performance of additional air pollution control equipment recently installed to address these two pollutants.

Mercury and Fish

Fish tissue sampling for mercury, ongoing since 1998, continued. For the first time in April of 2005, it was necessary to issue a mercury fish advisory for Prince Edward Island. The Health Canada maximum allowable limit of 0.50 mg/kg, has been confined to O'Keefes Lake. The samples collected in July of 2005 and January of 2006 from this lake were also in excess of the guideline.

The following table illustrates key statistics for air quality and hazardous materials.

Type of Review	2006 Key Statistics
Inspections of refrigeration/air-conditioning equipment at landfills	3,826
Recovery of ozone depleting substances from landfills	3,647 units for a total of 491 kg
Investigation of petroleum spills	280
Removal of underground petroleum storage tanks	52
Recorded home heat tank/storage tank spills	146
Records review requests	273
Registered generators of hazardous waste*	463
Shipping manifests processed	960
Hazardous waste shipped for disposal/recycling	2,481,938 kg
Import of lead-acid batteries to the province	26,783
Recovery of lead-acid batteries for recycling out-of-province**	19,420 (72.5% recovery)
Number of after-hours calls received by the Environmental Emergency Response Team	110

*The *Transportation of Dangerous Goods Act* requires that generators of hazardous waste register with the department and provide information about the types and quantities of wastes generated.

**Lead-acid batteries can represent a threat to groundwater as their components have the potential to leach into soil. With the development of the lead-acid battery recovery program, attempts to reduce the risk have been highly successful.

Climate Change Section

Pollution Prevention maintains responsibility for climate change and greening of Government activities and programs Government-wide. Staff co-ordinate and participate in climate change activities throughout the province, monitor compliance with provincial commitments (including the New England Governors and Eastern Canadian Premiers Climate Change Action Plan), and represent the province on national and regional committees.

Climate Change Strategy

Based on the recommendations contained in *A Climate Change Strategy for Prince Edward Island*, a report of the Special Committee on Climate Change, a new Climate Change Strategy is being drafted. This strategy will replace the previous strategy, *Curbing Climate Change – Prince Edward Island's Climate Change First Business Plan.*

Canada's Clean Air Act

In October 2006, the Government of Canada launched Canada's Clean Air Agenda, a new approach to addressing air quality and climate

change. *Canada's Clean Air Act*, will enable integrated regulatory action on air pollutants and greenhouse gas emissions, establish renewable fuel standards, and enhance motor vehicle and commercial and consumer product efficiency standards. Pollution Prevention staff have engaged in ongoing consultation on *Canada's Clean Air Act,* highlighting our unique air quality and climate change issues, as well as our interest in a domestic offset trading system, a key compliance option for industry under the Regulatory Framework for Air Emissions.

New England Governors and Eastern Canadian Premiers

Prince Edward Island is a member of the Conference of New England Governors and Eastern Canadian Premiers and a signatory of the Climate Change Action Plan (2001). Pollution Prevention staff have been working with other members of the Climate Change Steering Committee to implement initiatives of the Climate Change Action Plan, including the Energy Dialogue – Renewable Energy and Energy Efficiency held in Charlottetown and a College Greening forum. Climate change progress reports were also compiled in preparation for the Conference of the New England Governors and Eastern Canadian Premiers.

Greening Government

A Government-wide Greening Government Committee was re-established in 2006. The committee includes senior managers from all Government departments. This committee will develop and implement a strategy to enhance the environmental sustainability of Provincial Government planning, operation and regulatory functions. Greening Government initiatives will meet or exceed provincial environmental statutes and regulations, and emulate best practices from the public and private sector.

Environmental Attributes from Renewable Energy Projects and Agricultural and Forest Practices

The Government of Prince Edward Island has accrued environmental attributes (or "carbon credits") associated with renewable energy generation. In December 2006, the Department of Environment, Energy and Forestry issued an Expression of Interest on the Environmental Attributes from Renewable Energy Projects and Agricultural and Forestry Practices as a means to gauge any national or international interest in the attributes and determine their current market value, as well as solicit interest in the development of future renewable energy projects. Six organizations responded. Due to the limited number of proposals received and the uncertainty around the establishment of federal greenhouse gas regulation and the establishment of a domestic trading system, we have elected to defer action on sale of these attributes.

Environmental Assessment Section

The Environmental Assessment Section deals with proposed developments which may qualify as "undertakings" as defined in the *Environmental Protection Act*. In addition, the section co-ordinates the subdivision environmental review process for provincial and municipal authorities, and administers the Waste Resource Management Regulations, the Excavation Pits Regulations, the *Unsightly Property Act* and the *Automobile Junkyard Act*.

The Environmental Assessment Section becomes aware of potential undertakings either

through referrals from other Government departments or through direct application by a proponent. On receipt, potential undertakings are screened to determine if approval under Section 9(1) of the *Environmental Protection Act* is required. If the project meets the definition of an undertaking, it is registered and the approval of the minister is ultimately required before it may proceed. If the project is not considered an undertaking but there are environmental issues that may need to be addressed by the proponent, it is considered a referral and conditions for mitigation are typically applied to a Building Permit or other required Government approval process.

Registered Undertakings

In 2006, a total of 11 undertakings were reviewed by the Environmental Assessment Section. The variety of projects included:

- one marine terminal expansion and marina development;
- four wind farm developments;
- two mink farms;
- two agricultural buildings and facilities;
- one lime storage pit; and
- one 138 kV transmission line.

Interdepartmental Approvals

In 2006, 186 referrals were processed by the Environmental Section which included:

- Agricultural Buildings and Facilities – 47 projects;
- Commercial Establishments – 21 projects;
- Buffer Zone/Forested Riparian Zone/Wetland Identification – 81 projects;
- Fisheries and Aquaculture – five projects; and
- Miscellaneous – 20 projects.

The Environmental Assessment Section also carries out reviews of various proposed subdivisions from across the province.

In 2006, 163 subdivision applications were reviewed including:

- 50 lots or more – two applications;
- 20-50 lots – 21 applications;
- 5-19 lots – 53 applications; and
- under 5 lots – 87 applications.

Excavation Pits, Automobile Junk Yards and Unsightly Properties

The inspection and permitting of waste management facilities, excavation pits and automobile junk yards are other important functions of the Environmental Assessment Section. Ensuring that these types of facilities are operating in compliance with their respective legislation is particularly important for the protection of groundwater and surface water resources.

In 2006, a total of two composting facilities, 50 recycling facilities, one landfill facility, five construction and demolition facilities, 294 licensed pits and 57 automobile junk yards were on file with the department. Over the course of the year, most of these were inspected by section staff.

As well, numerous inspections of properties were carried out under the *Unsightly Property Act* in 2006. Many of these properties required repeated visits and/or follow-up inspections in an effort to have problem areas addressed with the co-operation of the property owner.

Pesticide Regulatory Section

The Pesticide Regulatory Program maintains responsibility for administration of the *Pesticides Control Act* and regulations. This includes the review and update of legislation, licensing of commercial pesticide applicator and vendor businesses, certification of private pesticide applicators and the issue of pesticide application permits.

Legislation

New *Pesticides Control Act* regulations, designed to safeguard human health and protect the natural environment of the province, were approved by Executive Council in late December 2005. Designed to safeguard human health and protect the natural environment of the province, these regulations require the licensing of pesticide vendor and applicator businesses; instate mandatory certification of private and commercial applicators, as well as vendor sales personnel; introduce new loader/mixer and applicator categories; lower allowable wind speeds for the application of pesticides; and establish restrictions on the transport and storage of pesticides. The majority of these new regulations became effective January 1, 2006.

In early 2007, additional regulations were approved to address the display, storage and sale of domestic pesticides within the province. Based on a model developed by the Province of Quebec, these regulations, which become effective on March 1, 2007, separate domestic pesticides into self select (lower risk) and controlled purchase (higher risk) categories, and established licensing and certification requirements for vendors.

Licensing and Certification

The numbers of Pesticide Applicator Business Licences held in 2006 are as follows: Agricultural (2), Forestry (1), Landscape (6), Structural (6), Biting Fly Control (2), and Structural Fumigation (2). Across the province, 26 vendor companies held a Non-domestic Pesticide Vendor Business Licence.

Training sessions were offered for new certification categories, specifically Class D (seed treatment) and Loader/Mixer. Over 500 individuals received Class D certificates, and some 200 participants obtained Loader/Mixer certificates. Class G (greenhouse) Pesticide Applicator Certificates were also issued for the first time in 2006. At present, over 2,800 people hold private pesticide applicator certificates.

In support of the new regulations that address domestic pesticides, over 70 individuals received a Domestic Pesticide Vendor Certificate.

Introduced in 2003, the PEI Pesticide Re-certification Continuing Education Credit (CEC) Program allows certified, private agricultural pesticide applicators to renew their certification by participating in approved, continuing education events. Approximately 550 individuals currently participate in the CEC Program. In December 2005, responsibility for administration of the CEC Program, including the tracking of participant credits, passed to the PEI Federation of Agriculture.

Pesticide Application Permits

The number of permits issued for biting fly control (35) was up 25 per cent from 2005. The department issued three Schedule 1 Permits (covering 75 hectares) for the application of a

soil fumigant. No permits were issued for the application of azinphos-methyl.

Pesticide Monitoring

Surface water monitoring in 2006 again centred on the Wilmot and Dunk rivers. Five automated samplers were used, and sampling was triggered on changes in stream flow—sampling at 3, 6, 10 and 15 cm above ambient (normal) stream level. In total, 130 samples were analyzed for 25 commonly used agricultural pesticides. There were 78 detections of 11 pesticide products. Of these, six detections exceeded water quality guidelines for a specific pesticide.

Fin fish and shellfish sampling was not conducted during 2006, as pesticides were not observed in similar samples taken in 2003-05. As well, sediment sampling was not conducted in 2006.

As in previous years, groundwater samples were taken from a sampling of private homes, municipal wells, schools, senior housing units and hospitals across the province. Household wells in an area of intensive agricultural production were also sampled. In 2006, 124 samples were analyzed for 25 commonly used pesticides. There was a small number of pesticide detections but, in all instances, detection levels were substantially below Canada's established drinking water guidelines.

Water Management Division

Mandate

The Water Management Division is responsible for the sustainable management, protection and enhancement of the province's drinking water, groundwater, inland surface water and coastal estuaries. The division regulates water and sewer infrastructure and assists in the administration of funding that supports this infrastructure. It also provides water testing services (microbiological and chemical) and engineering advisory services to the general public, other provincial departments and agencies, industry and municipalities; and is responsible for conducting baseline monitoring and assessment of the province's water resources.

Division Overview

The Water Management Division in 2006/07 focused resources in three critical areas:

- Drinking Water Management Section,
- Watershed Management Section, and
- Prince Edward Island Analytical Laboratories.

The main responsibility of the **Drinking Water Management Section** is to ensure sustainable management, protection and enhancement of drinking water and wastewater systems. The key programs areas include:

- PEI Drinking Water Strategy
- drinking water quality monitoring programs
- water and wastewater servicing
- licensing programs for contractors
- PEI Sludge Management Strategy

The **Watershed Management Section** is responsible for the management of groundwater, inland surface waters and coastal estuaries. The section recognizes the watershed as a principal unit of assessment, and that the quality and quantity of ground and surface waters are intrinsically related. The specific programs areas for the section include:

- groundwater quantity assessments
- watershed management
- water quality and quantity programs
- publication of groundwater and surface water quality and quantity information
- development of educational materials
- public education and information sessions

The **Prince Edward Island Analytical Laboratories** is responsible for the management of the province's water microbiological and water chemistry laboratories. As a result of the co-operative arrangement between the Department of Agriculture, Fisheries, Aquaculture and Forestry and the Department of Environment and Energy, a single Lab Manager is responsible for the day-to-day activities of the labs under the PEI Analytical Laboratories. The programs areas include:

- drinking water quality analyses
- general water quality analyses for ground and surface waters to determine the health of water for interests including aquatic habitat, the fishery, recreation, and aesthetics
- wastewater programs
- accreditation initiative with the Standards Council of Canada

Drinking Water Management Section

The most significant occurrence for the Drinking Water Management Section was the preparation of a pilot program for a new regime for the approval of on-site sewage disposal systems to be launched in 2007/2008. One of the principal accomplishments was the development of a detailed guideline document for site suitability assessment and system design. The program is intended to provide more flexibility and increased responsibility for contractors, and to reduce government involvement in the installation of septic systems. In addition, curriculum was developed for training of septic system contractors and provincial government staff. Of particular note is the modification of site assessments to include permeability testing, providing enhanced information on site suitability.

The section also continued to investigate various water quality problems in 2006/07. The majority of problems related to private wells, although some problems with small privately owned central water supplies were addressed as well. In many cases, these have been in recurring problem areas, often associated with older cottage subdivision characterized by dense development on small lots with individual on-site sewage disposal systems. In addition, staff were involved in such activities as soils assessments for on-site sewage disposal suitability, and providing advice on remedies for failed septic systems, and sampling activities related to the department's pesticide monitoring program. Continuing efforts were made to educate on-site sewage disposal contractors through workshops.

The Water Management Division is responsible for administration of Section 13 of the *Environmental Protection Act* which requires ministerial approval for design, construction, operation and maintenance of all water supply and wastewater treatment and collection systems. In 2006/07, a total of 53 Certificates of Approval were issued, with a value of work estimated to be $38 million. This represents a significant increase in expenditures over previous years, due in large part to work relating to up-grades of the Charlottetown and Summerside waste water treatment systems. The section continued to be involved in development and certification of treatment operators, (required by regulation since 2004) with exam sessions being held in the spring and fall. Under the requirements of the same regulations, approximately 3,000 drinking water samples were submitted by municipal utilities, and reviewed by section staff.

The division continues to provide technical support representing both Provincial/Federal Government interests in four major projects announced under the Strategic Infrastructure Program – upgrade of Charlottetown and Summerside wastewater treatment plants, Stratford water and sewer expansions and the Sludge Management Plan.

Only 10 Groundwater Exploration Permits were issued in 2006/07, continuing a trend of diminished demand for high capacity wells over the last few years. This trend is due in large part to the moratorium established on the construction of new irrigation wells.

As an important part of its activities, the Drinking Water Management Section conducts research on various topics of importance related to drinking water. The section continued work on an expanded pesticide monitoring program. Results to date have been similar to previous surveys, with detections being rare, and where

there have been detections, concentrations have been low compared to health guidance values.

Work on a multi-disciplinary project on nitrate in groundwater, led by the Geological Survey of Canada, and involving Agriculture and Agri - food Canada culminated in the release of the report: *Consequences of climatic changes on contamination of drinking water by nitrate on Prince Edward Island.* Plans for a limited follow-up study of geochemical aspects of the program were made, and are planned to commence in 2007-2008.

Watershed Management Section

The Watershed Management Section administers the Watershed Management Fund (WMF) that provides technical and financial assistance to community watershed organizations who are working on watershed restoration and/or watershed planning.

In 2006, 30 projects were approved through this watershed management initiative awarding a total of $118,000 to community groups and researchers. Priority funding areas included watershed plan preparation, facilitation and strategic planning, and building capacity of watershed organizations. As a result of funding, other traditional watershed restoration activities including stream enhancement, fish passage restoration, riparian and upland tree planting, wetland enhancement and watershed group newsletters were also carried out by many watershed organizations.

Three pilot watershed projects were funded with assistance from the Canada-PEI National Water Program. The Trout River Environmental Committee, the Souris Wildlife Federation and the Central Queens Wildlife Federation are developing holistic, community-led watershed plans with a focus on protecting water quantity and water quality.

Long-term water quality monitoring was continued on groundwater, fresh water and estuary sites as part of the Canada-PEI Water Quality Agreement. The PEI Estuaries Program and the Freshwater Loading Program monitor estuaries and streams across the Island for receiving water quality and freshwater loading respectively. Long-term groundwater level monitoring was continued at 13 groundwater wells throughout the province. These observation wells are instrumented and monitor fluctuations in the water table on a daily basis.

Web based data reporting is a strong component of the section's outreach to the Island public. Surface water results for both current and archive data is available on the department website. This data is viewable on a mapping application and a graphics application. The links are dynamic and automatically updated daily. Groundwater level information was available real time for two stations. Non real-time stations are updated approximately every two months. A long-term goal of the program will be to have all of the groundwater sites fitted with communications equipment to provide real time access.

Short-term stream flow monitoring was completed at a number of sites to assess the impact of irrigation from streams. Discharge measurements were performed three to four times during the irrigation season to calibrate the relationship of stage-discharge at each site. These curves were used to monitor the stream flow and assist the decision-making of issuing irrigation permits.

The section participates in groundwater modeling research especially related to nitrate

contamination and movement. In 2006, watershed modeling of groundwater transport was run for three watersheds as part of watershed planning projects. These watersheds were the Souris River, the West River and the Trout River (New London).

As part of its regulatory work, the section issues watercourse and wetland alteration permits for acceptable activities around streams and wetlands. In early 2006, the Watershed Management Section and the Habitat Section of the Department of Fisheries and Oceans completed lengthy revisions to the PEI Watercourse and Wetland Alteration Guidelines. The new document is a web-based publication available on the departmental website.

The Watershed Management Section worked with the Sustainable Agriculture Section of the Department of Agriculture, Fisheries and Aquaculture, the Federation of Agriculture, Agriculture and Agri-Food Canada, the Souris Branch of the PEI Wildlife Federation and the Trout River Environmental Committee on an ecological goods and service pilot for PEI utilizing an Alternative Land Use Service (ALUS) model. Funding for the pilot was approved by Agriculture and Agri-Food Canada late in the year to the Souris Branch of the PEI Wildlife Federation for implementation in 2007 through 2009 in the Souris River and the Founds River watersheds. This program will see producers in the two watersheds working with their watershed groups to supply services that will enhance water quality and habitat.

Prince Edward Island Analytical Laboratories

The PEI Analytical Laboratories, an amalgamation of the Department of Environment, Energy and Forestry Water Chemistry Laboratory and Water Microbiology Laboratory, as well as the Dairy Testing Laboratory and the Soil and Feed Laboratory operated by the Department of Agriculture, Fisheries and Aquaculture, continues to offer a wide range of analytical services.

An external audit of the laboratory will be conducted by the Standards Council of Canada in March of 2008. As part of accreditation, the lab must participate in an external audit or Conformity Assessment conducted by the Standards Council of Canada (SCC) to verify that the lab has the competence necessary to carry out a specific testing in compliance with international standards.

The past year was another busy one for water analysis with over 20,000 samples analyzed for various parameters. Following are the 2006/07 statistics for the lab.

Water Sample Analysis Activity 2006/07	
Category	**Total**
Drinking Water Microbiology	16,193
Drinking Water Chemistry	2,643
Other samples – Microbiology	530
Other samples – Chemistry	989
Total samples analyzed	**20,355**

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